AMENDMENTS TO THE CLAIMS

The Claim Listing presented below replaces all prior versions and listings of claims in this application.

LISTING OF CLAIMS:

1. – 19. (Canceled)

20. (Currently Amended) An immunogenic composition comprising an attenuated bacterium microorganism consisting of one of a Shigella strain and a Salmonella strain transformed with a vector capable of expressing a non-infectious, non-pathogenic mammalian prion protein selected from the group consisting of mouse, bovine, deer, elk, and sheep prion protein, wherein the composition is suitable for mucosal administration and, when ~~introduced to a mammal's mucosal immune system,~~ administered mucosally to a mammal expressing an endogenous prion protein, elicits a primarily Th-2-type immune response against said ~~an~~ endogenous prion protein of said mammal that is associated with a mucosal IgA humoral immune response and any concomitant immunoglobulin counterpart in other bodily fluids, and is not associated with a primarily Th-1-type cytotoxic T-lymphocyte response.

21. (Canceled)

22. (Currently Amended) The composition of Claim 20, wherein the prion protein consists of an amino acid sequence ~~which is a member of~~ selected from the group consisting of residues 93-156 of one of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, and SEQ ID NO:8.

23. (Original) The composition of Claim 22, wherein all amino acid residues are D-amino acids.

24-27. (Canceled)

28. (Currently Amended) The composition of Claim 51, wherein the Salmonella strain is ~~of a strain~~ selected from the group consisting of Salmonella typhimurium LVR01 and SL3261, ~~Salmonella enteritidis LVR02,~~ and Salmonella typhi Ty21a.

29. (Withdrawn, Currently Amended) A method of preventing or treating a prion disease in a mammalian subject in need thereof, comprising ~~mucosal administration of the vaccine~~ mucosally administering to said subject the immunogenic composition of Claim 20 ~~to a mammalian subject in need thereof~~.

30. (Withdrawn, Currently Amended) The method of Claim 29, wherein the mammalian subject is ~~a member of~~ selected from the group consisting of bovine, deer, elk, and sheep.

31. (Withdrawn, Currently Amended) The method of Claim 29, wherein the mucosal administration is ~~a member~~ selected from the group consisting of oral, intragastric, intranasal, rectal and intraocular administration.

32. (Canceled)

33. (Withdrawn) The method of Claim 29, wherein the subject is bovine and the prion disease is bovine spongiform encephalopathy.

34. (Withdrawn) The method of Claim 29, wherein the subject is deer or elk and the prion disease is chronic wasting disease.

35. (Withdrawn) The method of Claim 29, wherein the subject is sheep and the prion disease is scrapie.

36. (Withdrawn) The method of Claim 29, further comprising repeating the mucosal administration at least once.

37. (Withdrawn) The method of Claim 36, comprising repeating the mucosal administration within one month after the first administration.

38-44. (Canceled)

45. (Currently Amended) The composition of Claim 20, wherein the prion protein consists of an amino acid sequence ~~which is a member of~~ selected from the group consisting of residues 123-225 of one of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, and SEQ ID NO:8.

46. (Original) The composition of Claim 45, wherein all amino acid residues are D-amino acids.

47-50. (Canceled)

51. (Previously Presented) The composition of Claim 20, wherein the attenuated bacterium microorganism is a Salmonella strain.

52. (Previously Presented) The composition of Claim 20, wherein the attenuated bacterium microorganism is a Shigella strain.

53. (Currently Amended) The composition of ~~any one of Claims 3, 22,~~ Claim 22 or 45, wherein at least one amino acid residue is a D-amino acid residue.

54-56. (Canceled)

57. (New) The composition of Claim 20, further comprising aluminum hydroxide.